

AMENDMENTS TO THE CLAIMS

1-117. (Canceled)

118. (New) A metal film forming unit for plating a surface of a substrate with metal, said unit comprising:

a substrate holding portion configured to hold the substrate with the surface, to be plated, facing up and to rotate the substrate, said substrate holding portion capable of moving vertically between an upper plating position and a lower cleaning position;

an anode located in a position above the substrate when held by said substrate holding portion;

a cathode portion having a cathode electrode and a seal member located above the substrate when held by said substrate holding portion and configured to rotate together with said substrate holding portion, the surface of the substrate being placed in contact with said cathode electrode and said seal member when said substrate holding portion is in the plating position;

a plating liquid supply member configured to supply a plating liquid onto the surface of the substrate when held by said substrate holding portion in the plating position; and

a nozzle configured to supply pure water or a chemical liquid to at least one of said cathode portion and the surface of the substrate when held by said substrate holding portion in the cleaning position,

wherein said substrate holding portion in the cleaning position and said cathode portion are configured to rotate together with each other, with the surface of the substrate being out of contact with said cathode electrode and said seal member.

119. (New) The metal film forming unit according to claim 118, further comprising:

a plating liquid recovery nozzle configured to recover the plating liquid from the surface of the substrate when held by said substrate holding portion in the plating position.

120. (New) The metal film forming unit according to claim 118, further comprising:

a precoating and recovery arm having a precoating nozzle configured to supply a precoating liquid onto the surface of the substrate when held by said substrate holding portion in the plating position.

121. (New) The metal film forming unit according to claim 118, further comprising:
a plating liquid impregnated material provided on a lower surface of said anode.

122. (New) The metal film forming unit according to claim 118, further comprising:
a plating liquid tray for storing the plating liquid therein; and
an electrode arm portion configured to move said anode between said plating liquid tray and the position above the substrate when held by said substrate holding portion.

123. (New) A semiconductor substrate processing apparatus, comprising:
a carry-in and carry-out section for carrying in and carrying out a substrate having a surface on which a circuit is formed, in a dry state;
a metal film forming unit for forming a metal film on the surface of the substrate which has been carried in, said film forming unit including
(i) a substrate holding portion configured to hold the substrate with the surface, to be plated, facing up and to rotate the substrate, said substrate holding portion capable of moving vertically between an upper plating position and a lower cleaning position;
(ii) an anode located in a position above the substrate when held by said substrate holding portion;
(iii) a cathode portion having a cathode electrode and a seal member located above the substrate when held by said substrate holding portion and configured to rotate together with said substrate holding portion, the surface of the substrate being placed in contact with said cathode electrode and said seal member when said substrate holding portion is in the plating position;
(iv) a plating liquid supply member configured to supply a plating liquid onto the surface of the substrate when held by said substrate holding portion in the plating position; and

(v) a nozzle configured to supply pure water or a chemical liquid to at least one of said cathode portion and the surface of the substrate when held by said substrate holding portion in the cleaning position,

wherein said substrate holding portion in the cleaning position and said cathode portion are configured to rotate together with each other, with the surface of the substrate being out of contact with said cathode electrode and said seal member; and

a transport mechanism configured to transport the substrate, said transport mechanism having a dry hand for handling the substrate in a dry state and a wet hand for handling the substrate in a wet state.